SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT: MAX-PLANCK-GESELLSCH

WISSENSCHAFTEN E.V. Hofgarten-Strasse 2, Munich, Germany 80539

(ii) TITLE OF INVENTION: NOVEL PTP20, PCP-2,

BDP1, CLK,
AND SIRP PROTEINS AND

RELATED PRODUCTS AND METHODS

(iii) NUMBER OF SEQUENCES: 30

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: Lyon & Lyon
(B) STREET: 633 West Fifth Street

(C) CITY: Los Angeles (D) STATE: California (E) COUNTRY: U.S.A.

(v) COMPUTER READABLE FORM:

ZIP:

(F)

(A) MEDIUM TYPE: 3.5" Diskette, 1.44 Mb

90071-2066

(B) COMPUTER: storage IBM Compatible

(C) OPERATING SYSTEM: IBM P.C. DOS 5.0

(D) SOFTWARE: FastSEQ for Windows 2.0

(vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: TO BE ASSIGNED

(B) FILING DATE:

HEREWITH

(C) CLASSIFICATION:

(vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: U.S. 60/019,629 (B) FILING DATE: June 17, 1996

(A) APPLICATION NUMBER:

(B) FILING DATE: August 9, 1996

(A) APPLICATION NUMBER:

U.S. 60/023,485 U.S. 60/030,860

(B) FILING DATE:

November 13, 1996

(A) APPLICATION NUMBER: U.S. 60/030,964

November 15, 1996

(A) APPLICATION NUMBER: U.S. 60/034,286

(B) FILING DATE:

(B) FILING DATE:

December 19, 1996

(viii) ATTORNEY/AGENT INFORMATION:

Warburg, Richard J. (A) NAME:

(B) REGISTRATION NUMBER: 32.327

(C) REFERENCE/DOCKET NUMBER: 225/298-PCT

(ix) TELECOMMUNICATION INFORMATION:

(A) TELEPHONE: (213) 489-1600 (B) TELEFAX: (213) 955-0440

(C) TELEX: 67-3510

(2) INFORMATION FOR SEO ID NO: 1:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6 amino acids

(B) TYPE: amino acid (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(D) OTHER INFORMATION: "Xaa" in positions 3 and 5

stands

for an unspecified amino

acid.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

Phe Trp Xaa Met Xaa Trp

- (2) INFORMATION FOR SEQ ID NO: 2:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH:

. 7 amino acids

amino acid

STRANDEDNESS: single (D) TOPOLOGY:

linear

(ii) MOLECULE TYPE:

peptide

(ix) FEATURE:

(D) OTHER INFORMATION: "Xaa" in position 6 stands

for

either Ser, Ile or Val.

SEQUENCE DESCRIPTION: SEQ ID NO: 2:

His Cys Ser Ala Gly Xaa Gly

- INFORMATION FOR SEQ ID NO:
 - (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6 amino acids
(B) TYPE: amino acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

Phe Leu Glu Arg Leu Glu

1 5

(2) INFORMATION FOR SEQ ID NO: 4:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6 amino acids

(B) TYPE: amino acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(D) OTHER INFORMATION: "Xaa" in positions 3 and 5

stands acid.

for an unspecified amino

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

Arg Trp Xaa Met Xaa Trp

(2) INFORMATION FOR SEQ ID NO: 5:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 7 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

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(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(D) OTHER INFORMATION: "Xaa" in position 6 stands

for

either Ser, Ile or Val.

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

His Cys Ser Ala Gly Xaa Gly
1 5

(2) INFORMATION FOR SEQ ID NO: 6:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 27 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(b) TOFOLOGI: Timear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

CTCTGTGTCC ACAGCAGTGC TGGCTGT

27

- (2) INFORMATION FOR SEQ ID NO: 7:
 - (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 7 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

His Arg Asp Leu Ala Ala Arg

INFORMATION FOR SEO ID NO: 8: (2)

SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6 amino acids amino acid (B) TYPE:

(C) STRANDEDNESS: single (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(D) OTHER INFORMATION: "Xaa" in position 2 stands

for

Val or Met. "Xaa" in

position

5 stands for Tyr or Phe.

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28

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

Asp Xaa Trp Ser Xaa Gly 1

- INFORMATION FOR SEQ ID NO: 9: (2)
 - (i) SEQUENCE CHARACTERISTICS:

28 base pairs (A) LENGTH:

TYPE: nucleic acid (B)

STRANDEDNESS: single (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

CGGGATCCCT TCGCCTTGCA GCTTTGTC

(2) INFORMATION FOR SEQ ID NO:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 30 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

CGGAATTCCT AGACTGATAC AGTCTGTAAG

30

- (2) INFORMATION FOR SEQ ID NO: 11:
 - (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: · peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

Asp Leu Lys Pro Glu Asn

1 5

- (2) INFORMATION FOR SEQ ID NO: 12:
 - (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6 amino acids

(B) TYPE: amino acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

Ala Met Met Glu Arg Ile

1

(2) INFORMATION FOR SEQ ID NO: 13:

5

SEQUENCE CHARACTERISTICS:

(A) LENGTH: 30 base pairs

(B) TYPE:

nucleic acid

(C) STRANDEDNESS:

single linear

(D) TOPOLOGY:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

TATAGCGGCC GCTAGACTGA TACAGTCTGT

30

(2) INFORMATION FOR SEQ ID NO: 14:

SEQUENCE CHARACTERISTICS:

(A) LENGTH: 32 base pairs

(B) TYPE: nucleic acid

(C)

STRANDEDNESS: single linear

SEQUENCE DESCRIPTION: SEQ ID NO: 14:

(D) TOPOLOGY:

TCCCCCGGGA TGCCCCATCC CCGAAGGTAC CA

32

INFORMATION FOR SEQ ID NO: (2)

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

39 base pairs

TYPE: (B)

nucleic acid

(C) STRANDEDNESS: .single

(D) TOPOLOGY:

linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:

30

TATAGCGGCC GCTCACCGAC TGATATCCCG ACTGGAGTC

(2) INF	DRMATION FOR SEQ ID NO:	16:				
(i)	SEQUENCE CHARACTERISTICS:					
) base pairs ucleic acid ingle inear				
(xi)	SEQUENCE DESCRIPTION:	SEQ ID NO:	16:			
TCCCCCG	GGG AGACGATGCA TCACTGTA	AG.		30		
(2) INF	(2) INFORMATION FOR SEQ ID NO: 17:					
(i)	SEQUENCE CHARACTERISTICS:					
	(A) LENGTH: 39 (B) TYPE: nu (C) STRANDEDNESS: si (D) TOPOLOGY: 1i	ncleic acid ingle		•		
(xi)	SEQUENCE DESCRIPTION:	SEQ ID NO:	17:			
TATAGCGG	GCC GCGCTGGCCT GCACCTGTC	A TCTGCTGGG		39		
	ORMATION FOR SEQ ID NO:					
(i)	(i) SEQUENCE CHARACTERISTICS:					
	(A) LENGTH: 30 (B) TYPE: nu (C) STRANDEDNESS: si (D) TOPOLOGY: li	cleic acid ngle				
(x1)	SEQUENCE DESCRIPTION:	SEQ ID NO:	18:			
CGGAATTC	AT GCGGCATTCC AAACGAACT	rc .		30		

(2)	INFO	RMATION FOR SEQ ID N	0: 19:				
	(i) SEQUENCE CHARACTERISTICS:						
		(A) LENGTH: (B) TYPE: (C) STRANDEDNESS: (D) TOPOLOGY:	nucleic acid single				
	(xi)	SEQUENCE DESCRIPTION	N: SEQ ID NO:	19:			
TA?	TAGCGG	CC GCCCTGACTC CCACTC	ATTT CCTTTTTAA	•	39		
				•			
(2)	2) INFORMATION FOR SEQ ID NO: 20:						
	(i)	(i) SEQUENCE CHARACTERISTICS:					
		(A) LENGTH: (B) TYPE: (C) STRANDEDNESS: (D) TOPOLOGY:	nucleic acid single				
	(xi)	SEQUENCE DESCRIPTION	N: SEQ ID NO:	20:			
CG	GAATTC	CG CCACCATGGC CCCTAT	ACTA GGTTAT		36		
		-					
2)	INFO	RMATION FOR SEQ ID NO	0: 21:				
	(1)	i) SEQUENCE CHARACTERISTICS:					
		(A) LENGTH: (B) TYPE: (C) STRANDEDNESS: (D) TOPOLOGY:	nucleic acid single				
	(xi)	SEQUENCE DESCRIPTION	N: SEQ ID NO:	21:			
GCC	CAAGCT	IG CCACCATGGC CCCTATA	ACTA GGTTAT		36		

- (2) INFORMATION FOR SEQ ID NO: 22:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH:

21 base pairs

- TYPE: (B)
- nucleic acid STRANDEDNESS: single
- (D) TOPOLOGY:

linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

GTAGCAGTAA GAATAGTTAA A

(C)

21

- INFORMATION FOR SEQ ID NO: 23:
 - SEQUENCE CHARACTERISTICS: (i)
 - (A) LENGTH:

24 base pairs

(B) TYPE:

(C)

- nucleic acid STRANDEDNESS: single
- (D) TOPOLOGY:
- linear
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

GTTGCCCTGA GGATCATTAA GAAT

24

- INFORMATION FOR SEQ ID NO: 24:
 - SEQUENCE CHARACTERISTICS: (i)
 - (A) LENGTH:

24 base pairs

(B) TYPE:

nucleic acid

- (C) STRANDEDNESS:
- single
- (D) TOPOLOGY:
- linear

- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:

- (2) INFORMATION FOR SEQ ID NO: 25:
 - (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 30 base pairs (B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:

TACAATTCTC ACTGCTACAT GTAAGCCATC

30

- (2) INFORMATION FOR SEQ ID NO: 26:
 - (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

13 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 26:

Pro Ile Tyr Ser Phe Ile Gly Gly Glu His Phe Pro Arg 1 5 10

- (2) INFORMATION FOR SEQ ID NO: 27:
 - (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 27:

Ile Val Glu Pro Asp Thr Glu Ile Lys

- (2) INFORMATION FOR SEQ ID NO: 28:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 6 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: peptide
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 28:

Tyr Gly Phe Ser Pro Arg

- (2) INFORMATION FOR SEQ ID NO: 29:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 12 amino acids
 - (B) TYPE: amino acid
 - (C), STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: peptide
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 29:

Ile Lys Glu Val Ala His Val Asn Leu Glu Val Arg

(2) INFORMATION FOR SEQ ID NO: 30:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 30:

Val Ala Ala Gly Asp Ser Ala Thr 1 5